

REMARKS

Reconsideration of the present application is respectfully requested. Claims 1, 13, 19, 28, 30 and 37 have been amended. No new matter has been added.

Amendment is appropriate for entry under 37 C.F.R. § 1.116

Applicant believes that the rejections in the current and previous Office Actions may result from a misinterpretation by the Examiner of the claim term "language model". Therefore, Applicants are amending the claims *only* to make more clear what is already in the claim language, i.e., to recite that "language models" are models *for use by an automatic speech recognizer to recognize speech*. Note, for example, that claim 1 *already* recites "a recognition server to *recognize* an utterance of the user *by using one of the language models*" (emphasis added); claim 30 *already* recites "*recognizing* an utterance by the user *by using one of the language models*" (emphasis added); etc. Moreover, this meaning is also clear from Applicants' specification (e.g., page 6, lines 4-6; page 11, lines 5-9) and is commonly used in the art. The inserted claim language is entirely redundant, therefore, but is being inserted to prevent any further misinterpretation.

Because this amendment only inserts redundant claim language, the amendment clearly does not raise any new issues and *should be entered* under 37 C.F.R. § 1.116.

Discussion of Rejections

The amendments are made only to avoid possible misinterpretation of a claim term, *not* in response to the rejections or to comply with any statutory requirement of

patentability -- no amendment for such purpose is believed to be necessary. Applicants continue to traverse the rejections.

Claim 30 is representative of Applicants' Independent claims for purposes of discussing the present rejections. Claim 30 recites:

30. A method of facilitating speech recognition comprising:
 using an automated language model learning process to acquire a set of *language models for use by an automatic speech recognizer to recognize speech, based on PIM data* associated with a user;
 recognizing an utterance by the user by using one of the language models; and
 using the recognized utterance of the user to identify and access a *subset of the PIM data*. (Emphasis added.)

First, Kanevsky does not disclose or suggest *automatically learning* a set of *language models*. Second, Kanevsky does not disclose or suggest doing so *based on PIM data* associated with a user. Third, Kanevsky does not disclose or suggest then using an utterance of the user, which has been recognized by using one of the language models acquired from the PIM data, *to identify and access a subset of the PIM data*. These three points are discussed further below.

1. Kanevsky does not disclose or suggest automatically learning a set of *language models*.

Kanevsky discloses the ability to automatically build databases and models, such as user models (e.g., col. 7, lines 61-62; col. 8, lines 32-51). However, none of the

databases or models which are automatically built in Kanevsky are *language* models. A language model is a dataset that is used by an automatic speech recognizer to *recognize speech*.

The user models discussed in Kanevsky are used to *identify* the speaker (see col. 11, lines 3-21). They are *not language models*, because they are not used to recognize *what the speaker is saying*. The Examiner must appreciate the difference between recognizing/identifying the *speaker* versus recognizing the speaker's *speech* (i.e., what the speaker is saying). Kanevsky does not even hint that the ability to automatically build anything that could be construed as a language model within the meaning of the present application.

The Examiner cites Kanevsky at Fig. 4 and col. 8, line 51 – col. 9, line 5, contending, “The language model is automatically built from the individual’s personal information acquired through IVR methods as well as other static and dynamic information.” Office Action, p. 10. The Examiner is incorrect. In col. 8, line 51 – col. 9, line 5. Kanevsky does disclose automatically building a “*voice model*”; however, a voice model (sometimes called a “voiceprint”) is used to *identify* a speaker based on his vocal characteristics, not to *recognize* what the speaker is saying. Furthermore, the personal information in the user database shown in Fig. 4 is not used for speech recognition; Kanevsky clearly states that the information in the user database shown in Fig. 4 is used to improve *security* (col. 10, lines 35-41), i.e., to identify the speaker.

Thus, Kanevsky does not disclose or suggest *automatically learning* a set of *language models*. For at least this reason, therefore, each of Applicants independent claims is patentable over the cited art.

2. Kanevsky does not disclose or suggest automatically learning a set of language models *based on PIM data* associated with a user.

A personal information manager (PIM) can be defined as a form of software that logs personal and business information, such as contacts, appointments, to do lists, etc. See, e.g., definitions from Google search result enclosed with Applicants' previous response. Kanevsky does disclose using certain types of personal information, such as phone numbers, trips, meetings, facsimile and e-mail information (col. 8, lines 51-59). However, assuming *arguendo* that information is interpreted as "PIM data", that information is *not* used to *create language models*. Kanevsky does not disclose or suggest automatically learning a set of language models based on *those types* of information or any information that could be interpreted as *PIM data*. For this additional reason, therefore, each of Applicants independent claims is patentable over the cited art.

The Examiner cites Kanevsky at col.10, line 35 – col. 11, line 2, contending, "The information in the database and any new user information added (dynamic) information *forms the basis for* the user's language models." Office Action, p. 11 (emphasis added). However, assuming *arguendo* Kanevsky disclosed "language models", there is still no disclosure in Kanevsky of automatically *learning* a language model based on existing PIM data associated with a user.

3. Kanevsky does not disclose or suggest then using an utterance of the user, which has been recognized by using one of the language models acquired from the PIM data, *to identify and access a subset of the PIM data.*

The present invention as recited in claim 30 requires that an utterance of the user, which has been recognized by using one of the language models acquired from the PIM data, is used *to identify and access a subset of the PIM data.* For example, with the present invention a set of language models (e.g., speech recognition grammars or statistical language models) can be automatically generated from a user's personal address book, calendar and/or to do list. The user can then more effectively access that personal address book, calendar and/or to do list by using speech, which is recognized using the language models created from that data.

Assuming *arguendo* Kanevsky discloses PIM data and automatically learning language models from the PIM data, Kanevsky still does not disclose using speech recognition to allow the user to access the PIM data. In Kanevsky, the personal information such as phone number, emails, etc. are merely used by the system to verify the *identity* of the speaker. The system does not allow the user to access this information using speech.

The Examiner contends that "for example, a user attempting a remote login to a computer may be asked about when an email was received or the sender's name, etc. This information is used together with an ASR for decode text [sic]" Office Action, p. 11. However, the information to which the Examiner refers is *not* used to *recognize speech*. It is only used to identify the speaker.

For this additional reason, therefore, each of Applicants independent claims is patentable over the cited art.

Each of Applicants' independent claims includes the limitations discussed above or substantially similar limitations. Accordingly, each of the independent claims and all claims which depend on them are patentable over the cited art.

Dependent Claims

In view of the above remarks, a specific discussion of the dependent claims is considered to be unnecessary. Therefore, Applicants' silence regarding any dependent claim is not to be interpreted as agreement with, or acquiescence to, the rejection of such claim or as waiving any argument regarding that claim.


For the foregoing reasons, the present application is believed to be in condition for allowance, and such action is earnestly requested.

If any additional fee is required, please charge Deposit Account No. 02-2666.

Respectfully submitted,
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